

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

**Patent Application**

**Inventor(s):** Mooi Choo Chuah et al.  
**Case:** Chuah 73-19 (LCNT/125735)  
**Serial No.:** 10/658,674                      **Group Art Unit:** 2617  
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**Examiner:** Huynh, Chuck  
**Title:** COMMUNICATIONS PROTOCOL BETWEEN A GATEWAY AND  
AN ACCESS POINT

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**SIR:**

**APPEAL BRIEF**

Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2437 mailed May 13, 2009 finally rejecting claims 1-7.

In the event that an extension of time is required for this appeal brief to be considered timely, and a petition therefor does not otherwise accompany this appeal brief, any necessary extension of time is hereby petitioned for.

Appellants believe the only fee due is the **\$540** Appeal Brief fee which is being charged to counsel's credit card. In the event Appellants are incorrect, the Commissioner is authorized to charge any other fees to Deposit Account No. 50-4802/**ALU/125735**.

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### **Real Party in Interest**

The real party in interest is Alcatel Lucent.

### **Related Appeals and Interferences**

Appellants assert that no appeals or interferences are known to Appellants, Appellants' legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **Status of Claims**

Claims 1-7 are pending in the application. Claims 1-32 were originally presented in the application. Claims 8-32 have been cancelled. Claims 1-5 and 7 have been amended. The final rejection of claims 1-7 is appealed.

### **Status of Amendments**

All claim amendments have been entered.

### **Summary of Claimed Subject Matter**

Embodiments of the present invention are generally directed to a method for registering at least one wireless access point in a wireless area network (WAN), such as a wireless local area network (WLAN), wireless personal area network (WPAN), or other similar wireless area networks.

Claim 1 describes one embodiment of a method for registering at least one wireless access point in a wireless area network (WAN). A discovery message is broadcast from a WAN gateway to at least one wireless access point in the WAN. An access point registration request is received at the WAN gateway. The access point registration request is received from at least one wireless access point receiving the discovery message. The access point registration request includes access point location, IP address, MAC address, radio type, and power level information of the wireless access point. The access point registration request information is stored at the WAN gateway.

Claim 3 describes one embodiment of a method for registering a wireless access point in a wireless area network (WAN). A gateway discovery query message is broadcast from the wireless access point. At least one service discovery message is received from at least one WAN gateway, respectively. The wireless access point selects an appropriate WAN gateway in an instance where more than one service discovery message is received. An access point registration request is sent to the selected WAN gateway. The access point registration request includes access point location, IP address, MAC address, radio type, and power level information of the wireless access point.

For the convenience of the Board of Patent Appeals and Interferences, Appellant's independent claims 1 and 3 are presented below with citations to various figures and appropriate citations to at least one portion of the specification for elements of the appealed claims.

Claim 1 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

1. (previously presented) A method (500) for registering at least one wireless access point (138) in a wireless area network (WAN) (130), comprising: (Pg. 4, Line 15 – Pg. 7, Line 14)

broadcasting (504), from a WAN gateway (136), a discovery message to said at least one wireless access point (138) in said WAN (130); (Pg. 9, Lines 25 – 26)

receiving (516) at said WAN gateway (136), from at least one wireless access point (138) receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point (138); and (Pg. 11, Lines 13 – 14; Pg. 9, Line 31 – Pg. 10, Line 31)

storing (518) said access point registration request information at said WAN gateway (136). (Pg. 11, Lines 14 – 15)

Claim 3 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

3. (previously presented) A method (600) for registering a wireless access point (138) in a wireless area network (WAN) (130), comprising: (Pg. 4, Line 15 – Pg. 7, Line 14)

broadcasting (604) a gateway discovery query message from said wireless access point,(138); (Pg. 11, Lines 29 – 30)

receiving (614), from at least one WAN gateway (136), a respective service discovery message; (Pg. 12, Lines 11 – 13)

selecting (616, 618), by said wireless access point (138), an appropriate WAN gateway (136) in an instance where more than one service discovery message is received; and (Pg. 12, Lines 13 – 22)

sending (620, 622, 628) an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point (138) to said



selected WAN gateway (136). (Pg. 12, Lines 23 – 28; Pg. 9, Line 31 – Pg. 10, Line 31)

### **Grounds of Rejection to be Reviewed on Appeal**

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matturi et al. (US Patent 6,574,208, hereinafter “Matturi”) in view of Patel (US Patent 7,031,266, hereinafter “Patel”) and further in view of Reynolds et al. (US 2002/0196763, hereinafter “Reynolds”).

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matturi in view of Patel further in view of Reynolds in further view of Barber et al. (US Patent Application Publication 2004/0078598, hereinafter “Barber”).

## Arguments

### I. Rejection of Claims 1-5 Under 35 U.S.C. 103(a)

#### A. Claims 1 – 2

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matturi in view of Patel in further view of Reynolds. The rejection is traversed.

Matturi, Patel, and Reynolds, alone or in combination, fail to teach or suggest all claim elements of Appellants' claim 1.

Matturi discloses establishing connections between base station controllers and base stations in a cellular system. (Matturi, Abstract).

Patel discloses a system for configuring wireless routers in which connectivity is established between a wireless router and at least one wireline router, connectivity between the wireless router and a plurality of neighboring wireless routers is established through the wireline router, and the wireless router is configured based on information exchanged with the neighboring wireless routers through the wireline router. (Patel, Abstract).

Reynolds discloses a system in which a master wireless communication server facilitates establishment of a connection between an access point and a slave wireless communication server. (Reynolds, Para. [0004]).

Matturi, Patel, and Reynolds, alone or in combination, fail to teach or suggest at least the limitations of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” as claimed in Appellants' claim 1.

#### Matturi

Matturi fails to teach or suggest at least the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC

address, radio type, and power level information of said wireless access point,” as claimed in Appellants’ claim 1.

First, Appellants submit that Matturi is directed toward establishing connections between base station controllers and base stations in a cellular wireless network. Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, fails to teach or suggest the wireless access points or WAN gateway of Appellants’ claim 1, much less the arrangement of Appellants’ claim 1 in which an access point registration request is received at a WAN gateway from at least one wireless access point receiving a discovery message from the WAN gateway, or the specific wireless access point information of Appellants’ claim 1.

Second, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants’ claim 1 (which, for various reasons provided herein, Appellants maintain they cannot), Matturi still would fail to teach or suggest receiving, at a WAN gateway from at least one wireless access point receiving a discovery message, an access point registration request, as claimed in Appellants’ claim 1. Indeed, in the Final Office Action, the Examiner admits that Matturi fails to teach or suggest that a wireless access point sends an access point registration request, acknowledging that Matturi instead discloses sending a registration response. Appellants note that this is described at least at Col. 6, Line 57 – Col. 7, Line 25 of Matturi. Specifically, the Examiner states that “...while Matturi et al. disclose setting up on a network device, such as an wireless access point, with a WLAN gateway, they disclose that the wireless access point sends a registration response containing the valid registration information.” (See Final Office Action, Pg. 4, Emphasis added). In the Final Office Action, the Examiner then asserts that Patel discloses that a wireless access point sends a registration request. Appellants respectfully disagree for the reasons provided hereinbelow with respect to Appellants’ discussion of Patel. Thus, even assuming *arguendo* that the cellular network teachings of Matturi could be applied in a rejection of Appellants’ claim 1 (which, for the reasons provided above, Appellants maintain they cannot), Matturi still would fail to teach or suggest receiving an access point registration request at a WAN gateway from at least one wireless access point receiving a discovery message, as claimed in Appellants’ claim 1.

Third, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 1, Matturi still would fail to teach or suggest receiving, at a WAN gateway from at least one wireless access point receiving a discovery message, an access point registration request including access point location, IP address, MAC address, radio type, and power level information of the wireless access point, as claimed in Appellants' claim 1. Rather, Matturi merely includes a general statement indicating that identification information and hardware information is sent from the base station to the base station controller. (Matturi, Col. 7, Lines 38 – 39). Matturi is devoid of any teaching or suggestion of access point location, IP address, MAC address, radio type, or power level information of a wireless access point.

Thus, at least for these reasons, Matturi fails to teach or suggest at least the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” as claimed in Appellants' claim 1.

Patel

Patel fails to teach or suggest at least the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” as claimed in Appellants' claim 1.

Rather, Patel merely discloses a cellular system in which a wireless router exchanges information with a plurality of neighboring wireless routers for purposes of configuring the wireless router.

First, Patel is devoid of any teaching or suggestion of a WAN as claimed in Appellants' claim 1. Rather, Patel is primarily directed toward configuration of wireless routers in a cellular network, as indicated in the Background section of Patel, as well as various portions of the Detailed Description portion of Patel. Thus, Patel fails to teach or suggest a WAN gateway or wireless access points as recited in Appellants' claim 1 and,

therefore, also must fail to teach or suggest that a WAN gateway receives from at least one wireless access point an access point registration request, much less an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 1.

Second, even assuming *arguendo* that Patel could be interpreted as disclosing the at least one wireless access point of Appellants' claim 1 (as asserted by the Examiner in the Final Office Action, citing a statement in Col. 6, Lines 1 – 6 of Patel), Patel still would fail to teach or suggest a WAN gateway as claimed in Appellants' claim 1. The portion of Patel cited by the Examiner, as the basis for the Examiner's assertion that Patel discloses a WLAN network, merely states that the wireless RF link from a wireless router to a mobile terminal may be based on WLAN technology. Patel, however, is devoid of any teaching or suggestion that any of the routers is a WAN gateway, or of any WAN gateway associated with any of the routers. Rather, Patel is primarily directed toward configuration of wireless routers in a cellular network, as indicated in the Background section of Patel, as well as various portions of the Detailed Description portion of Patel. Thus, since Patel fails to teach or suggest a WAN gateway, Patel also must fail to teach or suggest that a WAN gateway receives from at least one wireless access point an access point registration request, much less an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 1.

Third, even assuming *arguendo* that the routers of Patel could be interpreted as disclosing the WAN gateway and wireless access point of Appellants' claim 1 (which Appellants maintain that they cannot), Patel still would fail to teach or suggest an access point registration request, as claimed in Appellants' claim 1. Rather, Patel merely includes general statements indicating that configuration information is exchanged between neighboring routers. A general teaching that configuration information is exchanged between neighboring routers, as disclosed in Patel, clearly does not teach or suggest the access point registration request of Appellants' claim 1. Patel is devoid of any teaching or suggestion that information exchanged between neighboring routers is exchanged in the form of a registration request. Thus, Patel fails to teach or suggest an access point registration request, as claimed in Appellants' claim 1 and, therefore, Patel

also must fail to teach or suggest an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 1.

In the Final Office Action (as noted hereinabove with respect to Appellants' discussion of Matturi), with respect to the registration request, the Examiner asserts that Patel discloses that a wireless access point sends a registration request. Specifically, the Examiner states that "...Patel et al. discloses that the wireless access point transmits a registration request" and, further, argues that "...in response to discovery messages, wireless routers send requests for connection and negotiate parameters – Column 2, Lines 3-11 and 44-50; Column 6, Lines 49-60; Column 8, Lines 9-39; Column 12, Lines 12-31; Column 13, Lines 3-13; Column 14, Lines 33-67; Column 18, Lines 17-45)." (See Final Office Action, Pg. 4, Emphasis added).

In response, Appellants submit that, as acknowledged by the Examiner, Patel discloses that routers exchange configuration information in response to discovery messages (i.e., multiple discovery messages) and, further, that routers exchange configuration information using a negotiation process (i.e., using multiple messages exchanged between the routers). This is clearly depicted in Figure 9 of Patel, which illustrates that different types of configuration information are exchanged via different sets of discovery and negotiation messages (illustratively, discovery of IP parameters using steps 350 – 354, discovery of service information using step 356, and discovery of RF parameters using steps 358 – 368). This also is described in the various portions of Patel cited by the Examiner in the Final Office Action. In other words, in the system of Patel, exchange of configuration information requires a significant number of messages to be exchanged between the routers, including multiple rounds of discovery and parameter negotiation where each round of discovery and parameter negotiation involved exchanging of messages between routers. Thus, even assuming *arguendo* that Patel may be held to disclose each of the parameters which the Examiner asserts are disclosed by Patel (which, at least for the reasons provided herein, Appellants maintain that Patel does not), Patel clearly is devoid of any teaching or suggestion of an access point registration request that includes each of the following parameters: access point location, IP address,

MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 1.

Fourth, even assuming *arguendo* that Patel could be interpreted as disclosing an access point registration request as recited in Appellants' claim 1 (which Appellants maintain that Patel cannot), Patel still would fail to teach or suggest an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 1.

In the Final Office Action, the Examiner admits that Patel fails to teach or suggest a MAC address. The Examiner then takes Official Notice, asserting that "...while the use of a MAC address is not specifically noted, it is well known in the art of wireless networking to utilize a MAC address as a unique identifier." (See Final Office Action, Pg. 5). Appellants respectfully disagree.

In response, Appellants respectfully submit that the Examiner's taking of Official Notice is improper and, thus, cannot serve as a proper basis for rejection of Appellants' claim 1.

MPEP 2144.03 states that "[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known" and, further, that "[i]f Appellant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained."

Appellants submit that the Examiner has failed to satisfy the requirements of MPEP 2144.03 regarding Official Notice.

In the non-final Office Action dated October 21, 2008, the Examiner took Official Notice regarding the MAC address limitation of Appellants' claim 1. In Appellants' response, dated January 20, 2009, to the non-final Office Action dated October 21, 2008, Appellants traversed the Examiner's taking of Official Notice, and requested that the Examiner provide documentary evidence in the next Office action if the Examiner intended on maintaining the rejection on the basis of the Official Notice. (See Appellants' Response, dated January 20, 2009). In that response, Appellants noted that



MAC addresses are not necessarily used in all types of wireless networks (e.g., MAC addresses typically are not used in cellular networks, such as the network of Matturi and, further, it is not clear that MAC addresses necessarily would be used in the network of Patel). In that response, Appellants further noted that, since MAC addresses are not used in all types of wireless networks, the Examiner's reliance, via Official Notice, on the use of MAC addresses in wireless networks is improper. In that response, Appellants then indicated that the Examiner must provide documentary evidence in the next Office action if the rejection is to be maintained.

In the Final Office Action, despite Appellants' traversal of the Examiner's taking of Official Notice, the Examiner maintained the rejection of Appellants' claim 1 based on the taking of Official Notice, while failing to comply with the requirement of MPEP 2144.03 that the Examiner provide documentary evidence in support of the taking of Official Notice. The Examiner failed to provide any such documentary evidence.

Thus, at least for this reason, the Appellants maintain that the Examiner's taking of Official Notice is improper and, thus, cannot serve as a proper basis for rejection of Appellants' claim 1.

Furthermore, Appellants maintain that, since MAC addresses are not used in all types of wireless networks, the Examiner's reliance, via Official Notice, on the use of MAC addresses in wireless networks is improper and, thus, cannot serve as a proper basis for rejection of Appellants' claim 1.

Thus, even assuming *arguendo* that Patel could be interpreted as disclosing an access point registration request as recited in Appellants' claim 1 (which Appellants maintain that Patel cannot), Patel, alone or using Official Notice, still would fail to teach or suggest an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 1.

Thus, at least for these reasons, Patel fails to teach or suggest at least the limitation of "receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point," as claimed in Appellants' claim 1.

Reynolds

Reynolds fails to teach or suggest at least the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” as claimed in Appellants’ claim 1.

First, Reynolds fails to teach or suggest “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request,” as claimed in Appellants’ claim 1.

Rather, Reynolds discloses a system in which a master wireless communication server facilitates establishment of a connection between an access point and a slave wireless communication server, where the access point sends a discovery request message to the master wireless communication server, the access point receives a discovery response message from the master wireless communication server, the access point sends a registration request to the master wireless communication server, the master wireless communication server accepts the registration from the access point, the master wireless communication server selects the slave wireless communication server, the master wireless communication server signals the slave wireless communication server, and the slave wireless communication server sends a registration granted message to the access point. (Reynolds, Para. 0004 and 0014).

In other words, Reynolds discloses a system in which an access point sends a discovery request message (step 1), the server responds to the discovery request message by sending a discovery response message to the access point (step 2), and the access point sends a registration request to the server in response to receiving the discovery response message from the server (step 3). This clearly is different than the arrangement of Appellants’ claim 1, in which a WAN gateway broadcasts a discovery message to at least one wireless access point and the WAN gateway receives an access point registration request from at least one wireless access point receiving the discovery message.

Thus, at least for these reasons, Reynolds fails to teach or suggest at least the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request,” as claimed in Appellants’ claim 1.

Second, even assuming *arguendo* that Reynolds could be interpreted as disclosing the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request” of Appellants’ claim 1 (which Appellants maintain that Reynolds cannot), Reynolds still would fail to teach or suggest an access point registration request “comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” as claimed in Appellants’ claim 1.

Reynolds is devoid of any teaching or suggestion of an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants’ claim 1. Rather, Reynolds merely states that the access point sends a registration request to the master wireless communication server. Reynolds is devoid of any teaching or suggestion that the registration request includes registration request information as claimed in Appellants’ claim 1. More specifically, Reynolds is devoid of any teaching or suggestion that a registration request includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants’ claim 1. The Examiner fails to cite any portion of Reynolds which teaches or suggests any of these parameters of Appellants’ claim 3, much less sending an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants’ claim 1.

Thus, at least for these reasons, Reynolds fails to teach or suggest at least the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” as claimed in Appellants’ claim 1.

Matturi, Patel, Reynolds Combination

Appellants submit that, since each of Matturi, Patel, and Reynolds fails to teach or suggest the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” a combination of Matturi, Patel, and Reynolds (assuming *arguendo* that such combination is even possible) also fails to teach or suggest the limitation of “receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point,” as claimed in Appellants’ claim 1.

Furthermore, Appellants submit that a *prima facie* case of obviousness with respect to Appellants’ claim 1 has not been established, at least because the proposed modification of Matturi with Patel and/or Reynolds would change the principle of operation of Matturi.

When a proposed modification or combination of the prior art changes the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). See MPEP §2143.01.

In the Final Office Action, the Examiner attempts to modify the teachings of Matturi based on the teachings of Patel, in order to arrive at Appellants’ claim 1.

First, Appellants submit that Matturi discloses a cellular-type wireless network. In the Final Office Action, the Examiner asserts that Patel discloses a registration request including access point location, IP address, MAC address, radio type, and power level information of said wireless access point. Appellant submit that such parameters are associated with a WLAN-type wireless network, and at least a portion of the parameters may not be relevant in the cellular-type system of Matturi. Thus, assuming *arguendo* that Patel teaches or suggests these parameters of Appellants’ claim 1 (which Appellants maintain that Patel does not), any attempted modification of the system of Matturi to include such parameters would require a change in the principle of operation of the

system of Matturi from a cellular-type wireless network to a WLAN-type wireless network in which such parameters would be relevant.

Second, Appellants submit that Matturi discloses an arrangement in which a connection is established between base station controller and a base station based on communications between the base station controller and the base station. The entire system of Matturi is designed around specific messages exchanged between the base station controller and the base station for purposes of establishing a connection therebetween. By contrast, Patel discloses an arrangement in which a wireless router exchanges information with neighboring wireless routers using multiple rounds of discovery requests and responses. Thus, any attempted modification of the arrangement of Matturi with the arrangement of Patel would require a change in the principle of operation of the system of Matturi with respect to message flows, as well as other features of Matturi.

Thus, at least for these reasons, any attempted modification of Matturi based on the teachings of Patel would change the principle of operation of Matturi.

In the Final Office Action, the Examiner attempts to modify the teachings of Matturi based on the teachings of Reynolds, in order to arrive at Appellants' claim 1.

First, Appellants submit that Matturi discloses a cellular-type wireless network. By contrast, Reynolds discloses a WLAN-type wireless network. Thus, any attempted modification of the cellular-type wireless network of Matturi using the WLAN-type wireless network of Reynolds would require a change in the principle of operation of the system of Matturi from a cellular-type wireless network to a WLAN-type wireless network, i.e., would result in a change in the principle of operation of Matturi.

Second, Appellants submit that Matturi discloses an arrangement in which a connection is established between base station controller and a base station based on communications between the base station controller and the base station. The entire system of Matturi is designed around specific messages exchanged between the base station controller and the base station for purposes of establishing a connection therebetween. By contrast, Reynolds discloses an arrangement in which a connection is established between a slave wireless communication device and an access point based on communications between a master wireless communication server and the access point

(as opposed to between the slave wireless communication device and the access point). Thus, any attempted modification of the arrangement of Matturi with the arrangement of Reynolds would require a change in the principle of operation of the system of Matturi with respect to message flows for connection establishment, as well as other features of Matturi.

Thus, at least for these reasons, any attempted modification of Matturi based on the teachings of Reynolds would change the principle of operation of Matturi.

Therefore, since the proposed modification of Matturi with Patel and/or Reynolds would change the principle of operation of Matturi, a *prima facie* case of obviousness with respect to Appellants' claim 1 has not been established.

### Conclusion

Thus, for at least these reasons, Matturi, Patel and Reynolds, alone or in combination, fail to teach or suggest all claim elements of Appellants' claim 1.

As such, independent claim 1 is patentable over Matturi in view of Patel further in view of Reynolds under 35 U.S.C. 103(a). Furthermore, claim 2 depends from independent claim 1, while adding additional elements. Therefore, this dependent claim also is non-obvious and is patentable over Matturi in view of Patel further in view of Reynolds under 35 U.S.C. §103 for at least the same reasons discussed above in regards to independent claim 1.

As such, Appellants' claims 1-2 are patentable over Matturi in view of Patel further in view of Reynolds under 35 U.S.C. §103(a). Therefore, the rejection should be withdrawn.

### B. Claims 3 - 5

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matturi in view of Patel in further view of Reynolds. The rejection is traversed.

Matturi discloses establishing connections between base station controllers and base stations in a cellular system. (Matturi, Abstract).

Patel discloses a system for configuring wireless routers in which connectivity is established between a wireless router and at least one wireline router, connectivity

between the wireless router and a plurality of neighboring wireless routers is established through the wireline router, and the wireless router is configured based on information exchanged with the neighboring wireless routers through the wireline router. (Patel, Abstract).

Reynolds discloses a system in which a master wireless communication server facilitates establishment of a connection between an access point and a slave wireless communication server. (Reynolds, Para. [0004]).

Matturi, Patel, and Reynolds, alone or in combination, fail to teach or suggest at least the limitations of “selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received” and “sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway,” as claimed in Appellants’ claim 3.

Appellants address these limitations in additional detail hereinbelow.

1. Matturi, Patel, and Reynolds, alone or in combination, fail to teach or suggest the limitation of “selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received.”

1-A. Matturi

Matturi fails to teach or suggest at least the limitation of “selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received,” as claimed in Appellants’ claim 3.

First, Appellants submit that Matturi is directed toward establishing connections between base station controllers and base stations in a cellular wireless network. Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, fails to teach or suggest the wireless access point or WAN gateway of Appellants’ claim 3, much less the arrangement of Appellants’ claim 3 in which a gateway discovery query message is broadcast from a wireless access point, at least one service discovery message is received from respective at least one WAN gateway, and the wireless access point

selects appropriate WAN gateway in an instance where more than one service discovery message is received, as claimed in Appellants' claim 3.

Second, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants' claim 3 (which, for various reasons provided herein, Appellants maintain they cannot), Matturi still would fail to teach or suggest selecting, by a wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message from more than one WAN gateway is received by the wireless access point, as claimed in Appellants' claim 3.

In the Final Office Action, the Examiner asserts that the base station controller and base station of Matturi teach the WAN gateway and wireless access point of Appellants' claim 3, respectively. (See Final Office Action, Pg. 6).

Appellants submit that, based on the Examiner's application of Matturi to Appellants' claim 3, in order for Matturi to disclose this limitation of Appellants' claim 3, Matturi would need to disclose that a base station selects an appropriate base station controller in an instance where more than one service discovery message is received from more than one base station controller.

Matturi, however, fails to teach or suggest that a base station selects an appropriate base station controller in an instance where more than one service discovery message is received from more than one base station controller.

Rather, Matturi merely discloses that: (1) when a base station controller detects that it has been provided with identification information of a base station not yet connected to the base station, the base station controller transmits a link protocol link establishment request message, and (2) when the new base station connected to the system receives the link protocol link establishment request message, the base station transmits an acknowledgment message to the base station controller. (Matturi, Col. 7, Lines 1 – 30).

In other words, in the system of Matturi the base station only ever communicates with a single base station controller at a given time for purposes of establishing a connection with the base station controller.



Thus, the base station of Matturi will not receive multiple connection request messages from multiple base station controllers and, therefore, there is no need for the base station to select between multiple base station controllers.

Thus, since Matturi is devoid of any teaching or suggestion that a base station selects an appropriate base station controller in an instance where more than one service discovery message is received from more than one base station controller, Matturi fails to teach or suggest selecting, by a wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message from more than one WAN gateway is received by the wireless access point, as claimed in Appellants' claim 3.

In the Final Office Action, the Examiner cites specific portions of Matturi (namely, Col. 5, Lines 9 – 17, Col. 7, Lines 21 - 48), asserting that the cited portions of Matturi disclose Appellants' limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3. Appellants respectfully disagree.

With respect to the first portion of Matturi cited by the Examiner, Appellants note that the cited portion of Matturi merely states that when a base station controller detects that it has been provided with identification information on base stations not yet connected to the base station controller, the base station controller transmits frames used for communication with the base stations. This portion of Matturi is devoid of any teaching or suggestion of selecting an appropriate WAN gateway in an instance where more than one service discovery message is received as claimed in Appellants' claim 3.

With respect to the second portion of Matturi cited by the Examiner, Appellants submit that, as noted hereinabove, the cited portion of Matturi merely describes a process by which a connection between a base station controller and a base station is established. As described hereinabove, in the system of Matturi the base station only ever communicates with a single base station controller for purposes of establishing a connection with the base station controller. Matturi is devoid of any teaching or suggestion of multiple BCSs with which a base station may associate. Thus, Matturi is devoid of any teaching or suggestion that a base station selects an appropriate base station controller and, therefore, fails to teach or suggest selecting, by a wireless access point, an

appropriate WAN gateway in an instance where more than one service discovery message is received as claimed in Appellants' claim 3.

Thus, at least for these reasons, Matturi fails to teach or suggest at least the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

I-B. Patel

Patel fails to teach or suggest at least the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

Rather, Patel merely discloses a cellular system in which a wireless router exchanges information with a plurality of neighboring wireless routers for purposes of configuring the wireless router.

First, Patel is devoid of any teaching or suggestion of a WAN as claimed in Appellants' claim 3. Rather, Patel is primarily directed toward configuration of wireless routers in a cellular network, as indicated in the Background section of Patel, as well as various portions of the Detailed Description portion of Patel. Thus, Patel fails to teach or suggest a WAN gateway or wireless access points as recited in Appellants' claim 3 and, therefore, also must fail to teach or suggest that a wireless access point selects an appropriate WAN gateway in an instance where more than one service discovery message is received as claimed in Appellants' claim 3.

Second, even assuming *arguendo* that Patel could be interpreted as disclosing the wireless access point of Appellants' claim 3 (as asserted by the Examiner in the Final Office Action, citing a statement in Col. 6, Lines 1 – 6 of Patel), Patel still would fail to teach or suggest a WAN gateway as claimed in Appellants' claim 3. The portion of Patel cited by the Examiner merely states that the wireless RF link from a wireless router to a mobile terminal may be based on WLAN technology. Patel, however, is devoid of any teaching or suggestion that any of the routers is a WAN gateway, or of any WAN gateway associated with any of the routers. Rather, Patel is primarily directed toward configuration of wireless routers in a cellular network, as indicated in the Background

section of Patel, as well as various portions of the Detailed Description portion of Patel. Thus, since Patel fails to teach or suggest a WAN gateway, Patel also must fail to teach or suggest that a wireless access point selects an appropriate WAN gateway in an instance where more than one service discovery message is received as claimed in Appellants' claim 3.

Third, even assuming *arguendo* that the routers of Patel could be interpreted as disclosing the WAN gateway and wireless access point of Appellants' claim 3 (which Appellants maintain that they cannot), Patel still would fail to teach or suggest that a wireless access point selects an appropriate WAN gateway in an instance where more than one service discovery message is received as claimed in Appellants' claim 3. Rather, Patel merely includes general statements indicating that configuration information is exchanged between neighboring routers. Patel is devoid of any teaching or suggestion of selecting an appropriate WAN gateway in an instance where more than one service discovery message is received, much less that such selection is performed by a wireless access point.

Thus, at least for these reasons, Patel fails to teach or suggest at least the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

#### 1-C. Reynolds

Reynolds fails to teach or suggest at least the limitation of "selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received," as claimed in Appellants' claim 3.

Rather, Reynolds merely discloses a system in which a master wireless communication server selects a slave wireless communication server as the wireless communication server with which an access point communicates.

More specifically, Reynolds states that "[w]hen an access point is added to the wireless LAN, it sends a request to a master wireless communication server. The master wireless communication server indicates its presence and the application point can request a registration with a wireless communication server. The master wireless

communication server selects a specific wireless communication server to interact with the access point. The access point then tunnels data back and forth between the access point and the selected wireless communication server.” (Reynolds, Abstract, Emphasis added).

Appellants submit that selection of a wireless communication server for an access point where such selection is performed by a master wireless communication server, as disclosed in Reynolds, does not teach or suggest selection of a WAN gateway by a wireless access point, much less performing such selection in an instance where more than one service discovery message is received, as claimed in Appellants’ claim 3.

Thus, at least for these reasons, Reynolds fails to teach or suggest at least the limitation of “selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received,” as claimed in Appellants’ claim 3.

#### 1-D. Conclusion

Thus, since each of Matturi, Patel, and Reynolds fails to teach or suggest the limitation of “selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received,” a combination of Matturi, Patel, and Reynolds (assuming *arguendo* that such combination is even possible) also fails to teach or suggest the limitation of “selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received,” as claimed in Appellants’ claim 3.

2. Matturi, Patel, and Reynolds, alone or in combination, fail to teach or suggest the limitation of “sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway.”

#### 2-A. Matturi

Matturi fails to teach or suggest at least the limitation of “sending an access point registration request comprising access point location, IP address, MAC address, radio

type, and power level information of said wireless access point to said selected WAN gateway,” as claimed in Appellants’ claim 3.

First, Appellants submit that Matturi is directed toward establishing connections between base station controllers and base stations in a cellular wireless network. Matturi is devoid of any teaching or suggestion of a wireless area network (WAN) and, thus, fails to teach or suggest the wireless access points or WAN gateway of Appellants’ claim 3, much less the specific wireless access point information included in the access point registration request of Appellants’ claim 3.

Second, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants’ claim 3 (which, for various reasons provided herein, Appellants maintain they cannot), Matturi still would fail to teach or suggest an access point registration request, as claimed in Appellants’ claim 3. Indeed, in the Final Office Action, the Examiner admits that Matturi fails to teach or suggest that a wireless access point sends an access point registration request, acknowledging that Matturi instead discloses sending a registration response. Appellants note that this is described at least at Col. 6, Line 57 – Col. 7, Line 25 of Matturi. Specifically, the Examiner states that “...while Matturi et al. disclose setting up on a network device, such as an wireless access point, with a WLAN gateway, they disclose that the wireless access point sends a registration response containing the valid registration information.” (See Final Office Action, Pg. 6, Emphasis added). In the Final Office Action, the Examiner then asserts that Patel discloses that a wireless access point sends a registration request. Appellants respectfully disagree for the reasons provided hereinbelow with respect to Appellants’ discussion of Patel.

Third, Appellants submit that, even assuming *arguendo* that the cellular wireless network teachings of Matturi could be applied in a rejection of Appellants’ claim 3, Matturi still would fail to teach or suggest an access point registration request including access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants’ claim 3. Rather, Matturi merely includes a general statement indicating that identification information and hardware information is sent from the base station to the base station controller. (Matturi, Col. 7, Lines 38 – 39). Matturi is devoid of any teaching or suggestion of access point location,

IP address, MAC address, radio type, or power level information of a wireless access point.

Thus, at least for these reasons, Matturi fails to teach or suggest at least the limitation of “sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway,” as claimed in Appellants’ claim 3.

2-B. Patel

Patel fails to teach or suggest at least the limitation of “sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway,” as claimed in Appellants’ claim 3.

Rather, Patel merely discloses a cellular system in which a wireless router exchanges information with a plurality of neighboring wireless routers for purposes of configuring the wireless router.

First, Patel is devoid of any teaching or suggestion of a WAN as claimed in Appellants’ claim 3. Rather, Patel is primarily directed toward configuration of wireless routers in a cellular network, as indicated in the Background section of Patel, as well as various portions of the Detailed Description portion of Patel. Thus, Patel fails to teach or suggest a WAN gateway or wireless access points as recited in Appellants’ claim 3 and, therefore, also must fail to teach or suggest sending an access point registration request to a WAN gateway, much less an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants’ claim 3.

Second, even assuming *arguendo* that Patel could be interpreted as disclosing the wireless access point of Appellants’ claim 3 (as asserted by the Examiner in the Final Office Action, citing a statement in Col. 6, Lines 1 – 6 of Patel), Patel still would fail to teach or suggest a WAN gateway as claimed in Appellants’ claim 3. The portion of Patel cited by the Examiner merely states that the wireless RF link from a wireless router to a mobile terminal may be based on WLAN technology. Patel, however, is devoid of any teaching or suggestion that any of the routers is a WAN gateway, or of any WAN

gateway associated with any of the routers. Rather, Patel is primarily directed toward configuration of wireless routers in a cellular network, as indicated in the Background section of Patel, as well as various portions of the Detailed Description portion of Patel. Thus, since Patel fails to teach or suggest a WAN gateway, Patel also must fail to teach or suggest that sending an access point registration request to a WAN gateway, much less sending an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

Third, even assuming *arguendo* that the routers of Patel could be interpreted as disclosing the WAN gateway and wireless access point of Appellants' claim 3 (which Appellants maintain that they cannot), Patel still would fail to teach or suggest an access point registration request, as claimed in Appellants' claim 3. Rather, Patel merely includes general statements indicating that configuration information is exchanged between neighboring routers. A general teaching that configuration information is exchanged between neighboring routers, as disclosed in Patel, clearly does not teach or suggest the access point registration request of Appellants' claim 3. Patel is devoid of any teaching or suggestion that information exchanged between neighboring routers is exchanged in the form of a registration request. Thus, Patel fails to teach or suggest an access point registration request, as claimed in Appellants' claim 3 and, therefore, Patel also must fail to teach or suggest an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

In the Final Office Action (as noted hereinabove with respect to Appellants' discussion of Matturi), with respect to the registration request, the Examiner asserts that Patel discloses that a wireless access point sends a registration request. Specifically, the Examiner states that "...Patel et al. discloses that the wireless access point transmits a registration request" and, further, argues that "...in response to discovery messages, wireless routers send requests for connection and negotiate parameters – Column 2, Lines 3-11 and 44-50; Column 6, Lines 49-60; Column 8, Lines 9-39; Column 12, Lines 12-31; Column 13, Lines 3-13; Column 14, Lines 33-67; Column 18, Lines 17-45)." (See Final Office Action, Pg. 7, Emphasis added).

In response, Appellants submit that, as acknowledged by the Examiner, Patel discloses that routers exchange configuration information in response to discovery messages (i.e., multiple discovery messages) and, further, that routers exchange configuration information using a negotiation process (i.e., using multiple messages exchanged between the routers). This is clearly depicted in Figure 9, which illustrates that different types of configuration information are exchanged via different sets of discovery and negotiation messages (illustratively, discovery of IP parameters using steps 350 – 354), discovery of service information using step 356, and discovery of RF parameters using steps 358 – 368). This also is described in the various portions of Patel cited by the Examiner in the Final Office Action. In other words, in the system of Patel, exchange of configuration information requires a significant number of messages to be exchanged between the routers, including multiple rounds of discovery and parameter negotiation where each round of discovery and parameter negotiation involved exchanging of messages between routers. Thus, even assuming *arguendo* that Patel may be held to disclose each of the parameters which the Examiner asserts are disclosed by Patel (which Appellants maintain that Patel does not), Patel clearly is devoid of any teaching or suggestion of a single request which includes all of those parameter, i.e., of an access point registration request that includes each of the following parameters: access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

Fourth, even assuming *arguendo* that Patel could be interpreted as disclosing an access point registration request as recited in Appellants' claim 3 (which Appellants maintain that Patel cannot), Patel still would fail to teach or suggest an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

In the Final Office Action, the Examiner admits that Patel fails to teach or suggest a MAC address. The Examiner then takes Official Notice, asserting that "...while the use of a MAC address is not specifically noted, it is well known in the art of wireless networking to utilize a MAC address as a unique identifier." (See Final Office Action, Pg. 5). Appellants respectfully disagree.



In response, Appellants respectfully submit that the Examiner's taking of Official Notice is improper and, thus, cannot serve as a proper basis for rejection of Appellants' claim 3.

MPEP 2144.03 states that "[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known" and, further, that "[i]f Appellant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained."

Appellants submit that the Examiner has failed to satisfy the requirements of MPEP 2144.03 regarding Official Notice.

In the non-final Office Action dated October 21, 2008, the Examiner took Official Notice regarding the MAC address limitation of Appellants' claim 3. In Appellants' response, dated January 20, 2009, to the non-final Office Action dated October 21, 2008, Appellants traversed the Examiner's taking of Official Notice, and requested that the Examiner provide documentary evidence in the next Office action if the Examiner intended on maintaining the rejection on the basis of the Official Notice. (See Appellants' Response, dated January 20, 2009). In that response, Appellants noted that MAC addresses are not necessarily used in all types of wireless networks (e.g., MAC addresses typically are not used in cellular networks, such as the network of Matturi and, further, it is not clear that MAC addresses necessarily would be used in the network of Patel). In that response, Appellants further noted that, since MAC addresses are not used in all types of wireless networks, the Examiner's reliance, via Official Notice, on the use of MAC addresses in wireless networks is improper. In that response, Appellants then indicated that the Examiner must provide documentary evidence in the next Office action if the rejection is to be maintained.

In the Final Office Action, despite Appellants' traversal of the Examiner's taking of Official Notice, the Examiner maintained the rejection of Appellants' claim 3 based on the taking of Official Notice, while failing to comply with the requirement of MPEP 2144.03 that the Examiner provide documentary evidence in support of the taking of Official Notice. The Examiner failed to provide any such documentary evidence.

Thus, at least for this reason, the Appellants maintain that the Examiner's taking of Official Notice is improper and, thus, cannot serve as a proper basis for rejection of Appellants' claim 3.

Furthermore, Appellants maintain that since MAC addresses are not used in all types of wireless networks, the Examiner's reliance, via Official Notice, on the use of MAC addresses in wireless networks is improper and, thus, cannot serve as a proper basis for rejection of Appellants' claim 3.

Thus, even assuming *arguendo* that Patel could be interpreted as disclosing an access point registration request as recited in Appellants' claim 3 (which Appellants maintain that Patel cannot), Patel, alone or using Official Notice, still would fail to teach or suggest an access point registration request that includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

Thus, at least for these reasons, Patel fails to teach or suggest at least the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

#### 2-C. Reynolds

Reynolds fails to teach or suggest at least the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

Rather, Reynolds merely states that the access point sends a registration request to the master wireless communication server. Reynolds is devoid of any teaching or suggestion that a registration request includes registration request information as claimed in Appellants' claim 1. More specifically, Reynolds is devoid of any teaching or suggestion that a registration request includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 1. The Examiner fails to cite any portion of Reynolds which teaches or suggests any of these parameters of Appellants' claim 3, much less sending an access

point registration request to a selected WAN gateway where the access point registration request includes access point location, IP address, MAC address, radio type, and power level information of a wireless access point, as claimed in Appellants' claim 3.

Thus, at least for these reasons, Reynolds fails to teach or suggest at least the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

#### 2-D. Conclusion

Thus, since each of Matturi, Patel, and Reynolds fails to teach or suggest the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," a combination of Matturi, Patel, and Reynolds (assuming *arguendo* that such combination is even possible) also fails to teach or suggest the limitation of "sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway," as claimed in Appellants' claim 3.

3. A prima facie case of obviousness with respect to Appellants' claim 3 has not been established, at least because the proposed modification of Matturi with Patel and/or Reynolds would change the principle of operation of Matturi.

Appellants submit that a *prima facie* case of obviousness with respect to Appellants' claim 3 has not been established, at least because the proposed modification of Matturi with Patel and/or Reynolds would change the principle of operation of Matturi.

When a proposed modification or combination of the prior art changes the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). See MPEP §2143.01.

In the Final Office Action, the Examiner attempts to modify the teachings of Matturi based on the teachings of Patel, in order to arrive at Appellants' claim 3.

First, Appellants submit that Matturi discloses a cellular-type wireless network. In the Final Office Action, the Examiner asserts that Patel discloses a registration request including access point location, IP address, MAC address, radio type, and power level information of said wireless access point. Appellant submit that such parameters are associated with a WLAN-type wireless network, and at least a portion of the parameters may not be relevant in the cellular-type system of Matturi. Thus, assuming *arguendo* that Patel teaches or suggests these parameters of Appellants' claim 3 (which Appellants maintain that Patel does not), any attempted modification of the system of Matturi to include such parameters would require a change in the principle of operation of the system of Matturi from a cellular-type wireless network to a WLAN-type wireless network in which such parameters would be relevant.

Second, Appellants submit that Matturi discloses an arrangement in which a connection is established between base station controller and a base station based on communications between the base station controller and the base station. The entire system of Matturi is designed around specific messages exchanged between the base station controller and the base station for purposes of establishing a connection therebetween. By contrast, Patel discloses an arrangement in which a wireless router exchanges information with neighboring wireless routers using multiple rounds of discovery requests and responses. Thus, any attempted modification of the arrangement of Matturi with the arrangement of Patel would require a change in the principle of operation of the system of Matturi with respect to message flows, as well as other features of Matturi.

Thus, at least for these reasons, any attempted modification of Matturi based on the teachings of Patel would change the principle of operation of Matturi.

In the Final Office Action, the Examiner attempts to modify the teachings of Matturi based on the teachings of Reynolds, in order to arrive at Appellants' claim 3.

First, Appellants submit that Matturi discloses a cellular-type wireless network. By contrast, Reynolds discloses a WLAN-type wireless network. Thus, any attempted modification of the cellular-type wireless network of Matturi using the WLAN-type

wireless network of Reynolds would require a change in the principle of operation of the system of Matturi from a cellular-type wireless network to a WLAN-type wireless network, i.e., would result in a change in the principle of operation of Matturi.

Second, Appellants submit that Matturi discloses an arrangement in which a connection is established between base station controller and a base station based on communications between the base station controller and the base station. The entire system of Matturi is designed around specific messages exchanged between the base station controller and the base station for purposes of establishing a connection therebetween. By contrast, Reynolds discloses an arrangement in which a connection is established between a slave wireless communication device and an access point based on communications between a master wireless communication server and the access point (as opposed to between the slave wireless communication device and the access point). Thus, any attempted modification of the arrangement of Matturi with the arrangement of Reynolds would require a change in the principle of operation of the system of Matturi with respect to message flows for connection establishment, as well as other features of Matturi.

Thus, at least for these reasons, any attempted modification of Matturi based on the teachings of Reynolds would change the principle of operation of Matturi.

Therefore, since the proposed modification of Matturi with Patel and/or Reynolds would change the principle of operation of Matturi, a *prima facie* case of obviousness with respect to Appellants' claim 3 has not been established.

#### 4. Conclusion

Thus, for at least these reasons, Matturi, Patel and Reynolds, alone or in combination, fail to teach or suggest all claim elements of Appellants' claim 3.

As such, independent claim 3 is patentable over Matturi in view of Patel further in view of Reynolds under 35 U.S.C. 103(a). Furthermore, claims 4-5 depend, directly or indirectly, from independent claim 3, while adding additional elements. Therefore, these dependent claims also are non-obvious and are patentable over Matturi in view of Patel further in view of Reynolds under 35 U.S.C. §103 for at least the same reasons discussed above in regards to independent claim 3.

As such, Appellants' claims 3-5 are patentable over Matturi in view of Patel further in view of Reynolds under 35 U.S.C. §103(a). Therefore, the rejection should be withdrawn.

## **II. Rejection of Claims 6-7 Under 35 U.S.C. 103(a)**

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matturi in view of Patel further in view of Reynolds in further view of Barber. The rejection is traversed.

Claims 6-7 depend from claim 3, and recite additional limitations therefor. The rejection applies only to dependent claims, and each is predicated on the validity of the rejection under 35 U.S.C. 103 given Matturi in view of Patel further in view of Reynolds. As described hereinabove, Appellants' claim 3 is patentable over Matturi in view of Patel and further in view of Reynolds under 35 U.S.C. §103(a). Therefore, since the rejection under 35 U.S.C. 103 given Matturi in view of Patel further in view of Reynolds has been overcome, as described hereinabove, and there is no argument put forth by the Office Action that Barber supplies that which is missing from Matturi, Patel and Reynolds to render the amended independent claims obvious, the rejection of Appellants' claims 6 and 7 cannot be maintained.

Therefore, the rejection should be withdrawn.

**Conclusion**

Thus, Appellants submit that all of the claims presently in the application are allowable.

For the reasons advanced above, Appellants respectfully urge that the rejection of claims 1-7 is improper. Reversal of the rejection of the Final Office Action is respectfully requested.

Respectfully submitted,

Dated: 9/22/09



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## **CLAIMS APPENDIX**

1. (previously presented) A method for registering at least one wireless access point in a wireless area network (WAN), comprising:

broadcasting, from a WAN gateway, a discovery message to said at least one wireless access point in said WAN;

receiving at said WAN gateway, from at least one wireless access point receiving said discovery message, an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point; and

storing said access point registration request information at said WAN gateway.

2. (previously presented) The method of claim 1, wherein each wireless access point selects a random delay prior to sending said access point registration request to said broadcasting WAN gateway.

3. (previously presented) A method for registering a wireless access point in a wireless area network (WAN), comprising:

broadcasting a gateway discovery query message from said wireless access point;

receiving, from at least one WAN gateway, a respective service discovery message;

selecting, by said wireless access point, an appropriate WAN gateway in an instance where more than one service discovery message is received; and

sending an access point registration request comprising access point location, IP address, MAC address, radio type, and power level information of said wireless access point to said selected WAN gateway.

4. (previously presented) The method of claim 3, wherein said selecting further comprises:

determining if said wireless access point is currently registered; and



sending said service discovery message to said wireless access point.

5. (previously presented) The method of claim 3, wherein said selecting comprises:  
determining an appropriate WAN gateway using at least one of the following: a cost of using a WAN gateway, a load at a WAN gateway, and system features provided by a WAN gateway.
6. (original) The method of claim 3, wherein said sending an access point registration request further comprises sending security information in said access point registration request.
7. (previously presented) The method of claim 6, wherein each wireless access point selects a random delay prior to sending said access point registration request to said WAN gateway.
8. – 32. (cancelled)

## **EVIDENCE APPENDIX**

None

## **RELATED PROCEEDINGS APPENDIX**

None